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- <110> TAKARA BIO INC.
- <120> Process for the preparation of lymphocyte having cytotoxic activity
- <130> 04-058-PCTJP
- <150> JP 2003-298208
- <151> 2003-08-22
- <150> JP 2004-699
- <151> 2004-01-05
- <150> JP 2004-115648
- <151> 2004-04-09
- <150> JP 2004-222441
- **<151> 2004-07-29**
- <160> 29
- <210> 1
- <211> 87
- <212> PRT
- <213> Artificial Sequence

⟨220⟩

<223> partial region of fibronectin named || | -8

<400> 1

Pro Thr Asp Leu Arg Phe Thr Asn lie Gly Pro Asp Thr Met Arg

1 5 10 15

Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu

20 25 30

Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu

40 45

Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu

50 55 60

Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln

70 75

His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr

65

. 80

85

<210> 2.

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-9

2 / 4 6

<400> 2

Gly Leu Asp Ser Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala 5 10 Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr 30 Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser Gly Arg Pro 35 Arg Glu Asp Arg Val Pro His Ser Arg Asn Ser Ile Thr Leu Thr 50 55 60 Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser lle Val Ala Leu 65 · 70 Asn Gly Arg Glu Glu Ser Pro Leu Leu lle Gly Gln Gln Ser Thr 80 85 90

<210> 3

<211> 94

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-10

<400> 3

Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr Pro

WO 2005/019450

PCT/JP2004/012238

10 15 Thr Ser Leu Leu lle Ser Trp Asp Ala Pro Ala Val Thr Val Arg 20 25 Tyr Tyr Arg lie Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val 35 40 Gin Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr lie Ser -50 55 Gly Leu Lys Pro Gly Val Asp Tyr Thr lie Thr Val Tyr Ala Val 65 70 Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro ile Ser Ile 85 Asn Tyr Arg Thr

<210> 4-

<211> 84

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-11

<400> 4

Gin Met Gin Val Thr Asp. Val Gin Asp Asn Ser lie Ser Val Lys

1 5 10 15

Trp Leu Pro Ser Ser Ser Pro Val Thr Gly Tyr Arg Val Thr Thr

4 / 4 6

70

75

20 25 30

Thr Pro Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala Gly

35 40 45

Pro Asp Gin Thr Glu Met Thr lle Glu Gly Leu Gin Pro Thr Val

50 55 60

Glu Tyr Val Val Ser Val Tyr Ala Gln Asn Pro Ser Gly Glu Ser

Gin Pro Leu Val Gin Thr Ala Val Thr

65

80

<210> 5

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named III-12

35

<400> 5

Ala lle Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro

1 5 10 15

Thr Ser Leu Ser Ala Gin Trp Thr Pro Pro Asn Val Gin Leu Thr

20 . 25 . 30

Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met

WO 2005/019450

 Lys Glu 11e Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser

 50
 55
 60

 Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val Tyr Ala Leu
 65
 70
 75

 Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr
 80
 85
 90

PCT/JP2004/012238

Leu Glu

<210> 6

<211> 89

<212> PRT

<213> Artificial Sequence

<220> ·

<223> partial region of fibronectin named | | 11-13

50

<400> 6

 Asn Val
 Ser Pro Pro Arg Arg Ala Arg Val
 Thr Asp Ala Thr Glu

 1
 5
 10
 10
 10
 15

 Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr Ile Thr 20
 25
 25
 30

 Gly Phe Gln Val
 Asp Ala Val
 Pro Ala Asp Gly Gln Thr Pro Ile 35
 45

 Gln Arg Thr Ile Lys Pro Asp Val
 Arg Ser Tyr Thr Ile Thr Gly

60

Leu Gin Pro Gly Thr Asp Tyr Lys lie Tyr Leu Tyr Thr Leu Asn
65 70 75

Asp Asn Ala Arg Ser Ser Pro Val Val lie Asp Ala Ser Thr
80 85

<210> 7

⟨211⟩ 90

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named 111-14

<400> 7·

Ala ile Asp Ala Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro 5 . 1 10 15 Asn Ser Leu Leu Val Ser Trp Gin Pro Pro Arg Ala Arg ile Thr 20 25 30 Gly Tyr Ile lie Lys Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu 35 45 Val Val Pro Arg Pro Arg Pro Gly Val Thr Glu Ala Thr lie Thr 50 55 Gly Leu Glu Pro Gly Thr Glu Tyr Thr. He Tyr Val He Ala Leu

Lys Asn Asn Gin Lys Ser Giu Pro Leu ile Giy Arg Lys Lys Thr

65

WO 2005/019450

PCT/JP2004/012238

80

85

90

⟨210⟩ 8

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> partial region of fibronectin named CS-1

<400> 8

Asp Glu Leu Pro Gln Leu Val Thr Leu Pro His Pro Asn Leu His

10

15

.Gly Pro Glu Ile Leu Asp Val Pro Ser Thr

20

25

<210> 9

<211> 274

<212> PRT

<213> Human

<220>

<223> fibronectin fragment named C-274

⟨400⟩ 9

Pr.o	Thr	Asp	Leu	Arg	Phe	Thr	Asn	He	Gly	Pro	Asp	Thr	Met	Arg
1				5			•		10					15
V a I	Thr	Trp	Ala	Pro	Pro	Pro	Ser	lle	Asp	Leu	Thr	Asn	Phe	Leu
				20					25					30
Val	Arg	Tyr	Ser	Pro	V a I	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35					40					45
Ser	Нe	Ser	Pro	Ser	Asp	Asn	Ala	Vai	Val	Leu	Thr	Asn	Leu	Leu
				50					55					60
Pro	Gly	Thr	Głu	Tyr	Val	Val	Ser	Vai	Ser	Ser.	Val	Tyr	Glu	GIn
				65		-			70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	GIn	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	lle	Asp	Phe	Ser	Asp	He	Thin	A I a	Asn	Ser	Phe
	-			95					100					105
Thr	Val	His	Trp	lle	Ala	Pro	Arg	Ala	Thr	11e	Thr	Gly	Tyr	Arg
				110					115					120
lle	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Vai	Pro	His	Ser	Arg	Asn	Ser	He	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	lle	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	lle	Gly	GI n.	GIn	Ser	Thr	Val	Ser	Asp
				170					175					180
w . I	0	A ===	A = =	1	C1.::	W = 1	W - 1			T.L.	D	T L ::	C	

185 190 195 Leu lie Ser Trp Asp Ala Pro Ala Val Thr Val Arg Tyr Tyr Arg 200 205 lle Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln Glu Phe 215 220 Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu Lys 230 235 Pro Gly Val Asp Tyr Thr lie Thr Val Tyr Ala Val Thr Gly Arg 250 245 Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg 265 Thr Glu Ile Asp

<210> 10

<211> 271

<212> PRT

<213> Human

<220>

<223> fibronectin fragment named H-271

<400> 10

Ala lle Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro

1 5 10 15

Thr Ser Leu Ser Ala Gin Trp Thr Pro Pro Asn Val Gin Leu Thr

				20					25			•		30
Gly	Tyr	Arg	V a I	Arg	Val	Thr	Pro	Lys	Glu	Lys	Thr	Gly	Pro	Met
				35					40					45
Lys	Gtu	He	Asn	Leu	Ala	Pro	Asp	Ser	Ser	Ser	Va!	Val	Val	Ser
				50					55					60
Gly	Leu	Met	Va I	Ala	Thr	Lys	Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu
				. 65					70					75
Lys	Asp	Thr	Leu	Thr	Ser	Arg	Pro	Ala	GIn	Gly	Val	Val	Thr	Thr
				80					85					90
Leu	Glu	Asn	Val	Ser	Pro	Pro	Arg	Arg	Ala	Arg	Val	Thr	Asp	Ala
				95					100	٠				105
Thr	Glu	Thr	Thr	lle	Thr	lle	Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr
				110					115					120
lle	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val	Pro	Ala	Asn	Giy	Gln	Thr
	-			125					130					135
Pro	lle	GIn	Arg	Thr	lle	Lys	Pro	Asp	Vai	Arg	Ser	Tyr	Thr	lle
				140					145					150
Thr	Gly	Leu	Gin	Pro	Gly	Thr	Asp	Tyr	Lys	He	Tyr	Leu	Tyr	Thr
				155					160					165
Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	V a I	Val	He	Asp	Ala	Ser
				170					175					180
Thr	Ala	lle	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr
				185					190					195
Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	GIn	Pro	Pro	Arg	Ala	Arg	lle
				200					205					210
Thr	GIV	Tyr	He	He	Lvs	Tyr	Glu	Lys	Pro	Gly	Ser	Pro	Pro	Arg

215 220 225

Glu Val Val Val Pro Arg Pro Arg Pro Gly Val Thr Glu Ala Thr Ile
230 235 235 240

Thr Gly Leu Glu Pro Gly Thr Glu Tyr Thr Ile Tyr Val Ile Ala
245 250 250

Leu Lys Asn Asn Gln Lys Ser Glu Pro Leu Ile Gly Arg Lys Lys
260 265 270

Thr

<210> 11

<211> 296

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named H-296

<400> 1-1

Ala ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gin Val Thr Pro

1 5 10 15

Thr Ser Leu Ser Ala Gin Trp Thr Pro Pro Asn Val Gin Leu Thr
20 25 30

Gly Tyr Arg Val Arg Val Thr Pro Lys Glu Lys Thr Gly Pro Met
35 40 45

Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser Val Val Val Ser

				50					55					60
Gly	Leu	Met	Val	Ala	Thr	Lys	Tyr	Glu	V a I	Ser	Val	Tyr	Ala	Leu
•			٠	65					70					75
Lys	Asp	Thr	Leu	Thr	Ser	Arg	Pro	Ala	Gln	Gly	Val	Val	Thr	Thr
				80					85					90
Ļeu	Glu	Asn	Val	Ser	Pro	Pro	Arg	Arg	Ala	Arg	Val	Thr	Asp	Ala
				95					100					105
Thr	Glu	Thr	Thr	He	Thr	lle	Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr
		-		110					115					120
lle	Thr	Gly	Phe	Gln	Vai	Asp	Ala	Val	Pro	Ala	Asn	Gly	GIn	Thr
				125					130					135
Pro	He	Gln	Arg	Thr	He	Lys	Pro	Asp	Val	Arg	Ser	Tyr	Thr	He
				140					145					150
Thr	Gly	Leu	Gln	Pro	Gly	Thr	Asp	Tyr	Lys	He	Tyr	Leu	Tyr	Thr
				155					160					165
Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	Val	Val	I I e	Asp	Ala	Ser
				170					175					180
Thr	Ala	He	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr
				185					190					195
Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	GIn	Pro	Pro	Arg	Ala	Arg	lle
	•			200				•	205					210
Thr	Gly	Tyr	lle	lle	Lys	Tyr	Glu	Lys	Pro	Gly	Ser	Pro	Pro	Arg
				215					220					225
Glu	Val	Val	Pro	Arg	Pro	Arg	Pro	Gly	Val	Thr	Glu	Ala	Thr	He
				230					235					240
Thr	Gly	Leu	Glu	Pro	Gly	Thr	Glu	Tyr	Thr	Пe	Tyr	Val	He	Ala

245 250 255

Leu Lys Asn Asn Gin Lys Ser Glu Pro Leu IIe Gly Arg Lys Lys
260 265 270

Thr Asp Glu Leu Pro Gin Leu Val Thr Leu Pro His Pro Asn Leu
275 280 285

His Gly Pro Glu IIe Leu Asp Val Pro Ser Thr
290 295

<210> 12

<211> 549

<212> PRT

<213> Artificial Sequence

<220> ·

<223> fibronectin fragment named CH-271

<400> 12

 Pro
 Thr
 Asp
 Leu
 Arg
 Phe
 Thr
 Asn
 I le
 Gly
 Pro
 Asp
 Thr
 Met
 Arg

 1
 5
 5
 10
 10
 15
 15

 Val
 Thr
 Arg
 Pro
 Pro
 Pro
 Ser
 I le
 Asp
 Leu
 Thr
 Asn
 Phe
 Leu

 Val
 Arg
 Tyr
 Ser
 Pro
 Val
 Lys
 Asn
 Glu
 Glu
 Asp
 Val
 Ala
 Glu
 Leu

 Ser
 I le
 Ser
 Pro
 Ser
 Asn
 Ala
 Val
 Leu
 Thr
 Asn
 Leu
 Leu

 Ser
 I le
 Ser
 Pro
 Ser
 Asn
 Ala
 Val
 Val
 Leu
 Thr
 Asn
 Leu
 Leu

Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	GIn
				65					70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	He	Asp	Phe	Ser	Asp	He	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	I I e	Ala	Pro	Arg	Ala	Thr	lle	Thr	Gly	Tyr	Arg
	•			110					115					120
lle	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	V al	Pro	His	Ser	Arg	Asn	Ser	IIe.	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	He	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	G I u	Ser	Pro	Leu	Leu	He	Gly	GIn	GIn	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	Пe	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200					205					210
He	Thr	Tyr	Gly		Thr	Gly	Gly	Asn	Ser	Pro	Val	GIn	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	He	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp		Thr	1 l e	Thr	Val		Ala	Val	Thr	Gly	Arg
				245					250					255

Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	lle	Ser	lle	Asn	Tyr	Arg
				260					265					270
Thr	Glu	lle	Asp	Lys	Pro	Ser	Met	Ala	He	Pro	Ala	Pro	Thr	Asp
				275					280					285
Leu	Lys	Phe	Thr	GIn	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	Gln	Trp
				290					295					300
Thr	Pro	Pro	Asn	Val	Gln	Leu	Thr	GIy.	Tyr	Arg	Val	Arg	Val	Thr
				305					310					315
Pro	Lys	Glu	Lys	Thr	Gİÿ	Pro	Met	Lys	Glu	lle	Asn	Leu	Ala	Pro
				320					325					330
Asp	Ser	Ser	Ser	Val	Val	-Val	Ser	Gly	Leu	Met	Val	Ala	Thr	Lys
				335					340					345
Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					355					360
Pro	A I a	Gin	Gly		Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	
				365					370					375
Arg	Arg	Ala	Arg		Thr	Asp	Ala	Thr		Thr	Thr	fle	Thr	
				380					385					390
Ser	Trp	Arg	Thr		Thr	Glu	Thr	He		Gly	Phe	Gln	Val	
				395					400					405
Ala	Val	Pro	Ala		Gly	Gln	Thr	Pro		Gln	Arg	Thr	lle	
				410				•	415					420
Pro	Asp	Val	Arg			Thr	He	•		Leu	GIn	Pro	Gly	
	_			425		_			430					435
Asp	Tyr	Lys	lle			Tyr	Thr	Leu			Asn	Ala	Arg	
				440					445					450

 Ser
 Pro
 Val
 Val
 11e
 Asp
 Ala
 Ser
 Thr
 Ala
 11e
 Asp
 Ala
 Pro
 Ser
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<210> 13

<211> 574

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CH-296

<400> 13

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

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Val	Thr	Trp	Ala	Pro	Pro	Pro	Ser	I I e	Asp	Leu	Thr	Asn	Phe	Leu
				20			•		25					30
Val	Arg	Tyr	Ser	Pro	Val	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35					40					45
Ser	lle	Ser	Pro	Ser	Asp	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	Leu
				50					. 55					60
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	GIn
				65					70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	GIn	Lys	Thr	Gly	Leu	Asp
				80					85	-				90
Ser	Pro	Thr	Gly	lle	Asp	Phe	Ser	Asp	ile	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	He	Ala	Pro	Arg	Ala	Thr	lle	Thr	Gly	Tyr	Arg
				110					115					120
He	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	He	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	-	Val	V a _. I	Ser	He		Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	lle	Gly	GIn	GIn	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp		Glu	Val	Val	Ala		Thr	Pro	Thr	Ser	
				185					190					195
Leu	lle	Ser	Trp	ASD	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Туг	Arg

				200					205					210
lle	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215	•		•		220					225
Thr	V a I	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thir	lle	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	He	Thr	Val	Tyr	ĄΙα	Val	Thr	Gly	Arg
				245					250					255
GI y	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	lle	Ser	IІе	Asn	Tyr	Arg
				260					265					270
Thr	Głu	He	Asp	Lys	Pro	Ser	Met	Ala	lle	Pro	Ala	Pro	Thr	Asp
				275					280					285
Leu	Lys	Phe	Thr	Gln	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	GIn	Trp
				290					295					300
Thr	Pro	Pro	Asn	Va I	GIn	Leu	Thr	Gly	Tyr	Arg	Val	Arg	Val	Thr
	•			305					310					315
Pro	Lys	Glu	Lys	Thr	Gly	Pro	Met	Lys	Glu	lle	Asn	Leu	Ala	Pro
				320					325					330
Asp	Ser	Ser	Ser	Val	Val	Val	Ser	Gly	Leu	Met	Val	Ala	Thr	Lys
				335					340					345
Tyŕ	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					355					360
Pro	Ala	Gln	Gly	Val	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro
				365					370					375
Arg	Arg	Ala	Arg	Val	Thr	Asp	Ala	Thṛ	Glu	Thr	Thr	lie	Thr	lle
				380					385					390
Ser	Trp	Arg	Thr	Lys	Thr	Glu	Thr	He	Thr	Gly	Phe	Gln	Val	Asp

				395					400					405
Ala	Val	Pro	Ala	Asn	Gly	GIn	Thr	Pro	lle	Gin	Arg	Thr	lle	Lys
				410					415					420
Pro	Asp	Val	Arg	Ser	Tyr	Thr	lle	Thr	Gly	Leu	Gin	Pro	Gly	Thr
				425					430					435
Asp	Tyr	Lys	Пe	Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser
			-	440					445					450
Ser	Pro	Val	Val	lle	Asp	Ala	Ser	Thr	Ala	IIе	Asp	Ala	Pro	Ser
				455					460					465
Asn	Leu	Arg	Phe	Leu	Ala	Thr	Thr	Pro	Азп	Ser	Leu	Leu	Val	Ser
				470					475					480
Trp	Gln	Pro	Pro	Arg	Ala	Arg	He	Thr	Gly	Tyr	Пe	lle	Lys	Tyr
				485					490					495
Glu	Lys	Pro	Gly	Ser	Pro	Pro	Arg	Glu	Val	Val	Pro	Arg	Pro	Arg
				500					505					510
Pro	Gly	Val	Thr	Glu	Ala	Thr	lle	Thr	Gíy	Leu	Glu	Pro	Gly	Thr
				515					520					525
Glju	Tyr	Thr	I I e	Tyr	Val	He	Ala	Leu	Lys	Asn	Asn	GIn	Lys	Ser
				530					535					540
Glu	Pro	Leu	He	Gly	Arg	Lys	Lys	Thr	Asp	Glu	Leu	Pro	GIn	Leu
				545					550					555
Val	Thr	Leu	Pro		Pro	Asn	Leu	His	Gly	Pro	Glu	He	Leu	Asp
				560					565					570

Val Pro Ser Thr

<210> 14

<211> 302

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named C-CS1

95

110

<400> 14

 Pro
 Thr
 Asp
 Leu
 Arg
 Phe
 Thr
 Asn
 IIe
 Gly
 Pro
 Asp
 Thr
 Met
 Arg

 1
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Thr Val His Trp lie Ala Pro Arg Ala Thr lie Thr Gly Tyr Arg

lle Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp

21/46

100

				125					130			•		135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	Пе	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	l I e	Val	Ala	Leu	Asn	Gly	Arg
٠				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	lle	Gly	GIn	GIn	Ser	Thr	Val	Ser	Asp
				170					175		_			180
Vai	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	lle	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	V a 1	Arg	T _· y r	Tyr	Arg
			-	200	-				205					210
lle	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	lle	Ser	Gly	Leu	Ly s
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	He	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245	-	٠			250		•			255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	.Lys	Pro	lle	Ser	lle	Asn	Tyr	Arg
				260					265					270
Thr	Glu	He	Asp	Lys	Pro	Ser	Asp	Glu	Leu	Pró	Gin	Leu	Val	Thr
				275			•	·	280				•	285
Leu	Pro	His	Pro	Asn	Leu	His	Gly	Pro	Glu	IJе	Leu	Asp	Val	Pro
				290					295					300

Ser Thr

<210> 15

<211> 367

<212> PRT

<213> Artificial Sequence

(220>

<223> fibronectin fragment named CHV-89

<400> 15

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg . 10 Val Thr Trp Ala Pro Pro Pro Ser lle Asp Leu Thr Asn Phe Leu 20 25 Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu 35 Ser lie Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gin 65 70 His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp 80 85 90

100

Ser Pro Thr Gly lle Asp Phe Ser Asp lle Thr Ala Asn Ser Phe

Thr Val His Trp lle Ala Pro Arg Ala Thr lle Thr Gly Tyr Arg

110 115 120

lle Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp

				125	٠				130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	He	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	lle	Vai	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	lle	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				1.70					175					180
Val	Pro	Arg	Asp	Leu	Glu	V a I	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				185					190					195
Leu	l 1 e	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200					205					210
lle	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gln	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	i i e	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	He	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	l l e	Ser	He	Asn	Tyr	Arg
				260					265					270
Thr	Glu	He	Asp	Ĺys	Pro	Ser	Met	Asn	Val	Ser	Pro	Pro	Arg	Arg
				275					280					285
Ala	Arg	Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	lle	Thr	He	Ser	Trp
				290					295					300
Arg	Thr	Lys	Thr	Glu	Thr	Пe	Thr	GIy.	Phe	Gln	Val	Asp	Ala	Val
				305					310					315
Pro	Ala	Asn	Gly	Gln	Thr	Pro	lie	Gin	Arg	Thr	He	Lys	Pro	Asp

WO 2005/019450

PCT/JP2004/012238

 Val
 Arg
 Ser
 Tyr
 Thr
 IIe
 Thr
 Gly
 Leu
 Gln
 Pro
 Gly
 Thr
 Asp
 Tyr

 Lys
 IIe
 Tyr
 Leu
 Tyr
 Thr
 Leu
 Asp
 Asp
 Asp
 Ala
 Arg
 Ser
 Pro

 Val
 Val
 IIe
 Asp
 Ala
 Ser
 Thr

 365
 365
 325
 325
 360

⟨210⟩ 16

⟨21.1⟩ 368

<212> PRT

<213> Artificial Sequence

(220)

<223> fibronectin fragment named CHV-90

<400> 16

 Pro
 Thr
 Asp
 Leu
 Arg
 Phe
 Thr
 Asn
 I le
 Gly
 Pro
 Asp
 Thr
 Met
 Arg

 1
 5
 10
 15

 Val
 1r
 7r
 Ala
 Pro
 Pro
 Pro
 Ser
 I le
 Asp
 Leu
 Thr
 Asn
 Phe
 Leu

 Val
 Arg
 Tyr
 Ser
 Pro
 Val
 Lys
 Asn
 Glu
 Glu
 Asp
 Val
 Ala
 Glu
 Leu

 Ser
 I le
 Ser
 Pro
 Ser
 Asn
 Ala
 Val
 Leu
 Thr
 Asn
 Leu
 Leu

 Ser
 I le
 Ser
 Pro
 Ser
 Asn
 Ala
 Val
 Val
 Leu
 Thr
 Asn
 Leu
 Leu

Pro	Gly	Thr	Giu	Tyr	۷aί	V a I	Ser	Val	Ser	Ser	Val	Tyr	Glu	GIn
				65					70	,				75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gin	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	lle	Asp	Phe	Ser	Asp	He	Thr	Ala	Asn	Ser	Phe
	-			95					100					105
Thr	Val	His	Trp	lle	Ala	Pro	Arg	Ala	Thr	lle	Thr	Gly	Tyr	Arg
	•			110					115					120
lle	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	lle	Thr	Leu	Thr	Asn	Leu	Thr
			-	140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	lle	Val	Ala	Leu	Asn	Gly	Arg
				155				-	160	٠				165
Glu	Glú	Ser	Pro	Leu	Leu	l I e	Gly	GIn	Gin	Ser	Thr	Val	Ser	Asp
	•			170					175					180
Val	Pro	Arg	Ásp	Leu	Glu	Val	Va I	Ala	Ala	Thr	Pro	Thr	Ser	Leu
			·	185					190					195
Leu	l l e	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Va I	Arg	Tyr	Tyr	Arg
				200					205					210
He	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	V a I	GIn	Glu	Phe
		•		215					220					225
Thr	۷a۱	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	He	Ser	Gly	Leu	Lys
				230				•	235					240
Pro	Gly	Val	Asp	Tyr	Thr	1 l e	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245					250					255

Gly Asp Ser Pro Ala Ser Ser Lys Pro lle Ser lle Asn Tyr Arg 260 265 Thr Glu lie Asp Lys Pro Ser Met Ala IIe Asp Ala Pro Ser Asn 275 280 Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp 290 295 Gin Pro Pro Arg Ala Arg lie Thr Gly Tyr lie lie Lys Tyr Glu 305 310 Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro 320 325 Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro Gly Thr Glu 335 340 Tyr Thr lie Tyr Val lle Ala Leu Lys Asn Asn Gin Lys Ser Glu . . 350 355 360 Pro Leu'lle Gly Arg Lys Lys Thr 365

<210> 17

<211> 370

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-92

<400> 17

	-													
Pro	Thr	Asp	Leu	Arg	Phe	Thr	Asn	He	Gly	Pro	Asp	Thr	Met	Arg
1				5					10					15
Val	Thr	Trp	Ala	Pro	Pro	Pro	Ser	1 I e	Asp	Leu	Thr	Asn	Phe	Leu
				20					25					30
Val	Arg	Tyr	Ser	Pro	V a I	Lys	Asn	Glu	Glu	Asp	Val	Ala	Glu	Leu
				35				-	40					45
Ser	l l e	Ser	Pro	Ser	Asp	Asn	Ala	Val	Val	Leu	Thr	Asn	Leu	Leu
				50					55					60
Pro	Gly	Thr	Glu	Tyr	Val	Va I.	Ser	Val	Ser	Ser	Val	Tyr	Glu	Gln
				65	•				70					75
His	Glu	Ser	Thr	Pro	Leu	Arg	Gly	Arg	Gln	Lys	Thr	Gly	Leu	Asp
				80					85					90
Ser	Pro	Thr	Gly	Пе	Asp	Phe	Ser	Asp	He	Thr	Ala	Asn	Ser	Phe
				95					100					105
Thr	Val	His	Trp	He	Ala	Pro	Arg	Ala	Thr	lle	Thr	Gly	Tyr	Arg
				110					115					120
lle	Arg	His	His	Pro	Glu	Hi s	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	He	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glu	Tyr	Val	Va I	Ser	I I e	Val	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Пе	Gly	Gln	Gln	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	0	A	4	1	C1	Val	Val	A 1 a	41.	Th-	0	Th -	C	

				185					190					195
Leu	lle	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
		•		200					205					210
He	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gin	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	lle	Ser	Gly	Leu	Lys
		•		230			•		235					240
Pro	Gly	Val	Asp	Tyr	Thr	11e	Thr	V a I	Tyr	Ala	Val	Tḥr	Giy	Arg
(245					250					255
	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	lle	Ser	l I e	Asn	Tyr	Arg
				260					265					270
Thr	Glu	lle	Asp	Lys	Pro	Ser	Met	Ala	He	Pro	Ala	Pro	Thr	Asp
				275					280					285
Leu	Lys	Phe	Thr	Gln	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	GIn	Trp
	•			290					295					300
Thr	Pro	Pro	Asn	Val	GIn	Leu	Thr	Gly	Tyr	Arg	Va I	Arg	Val	Thr
				305		-		•	310					315
Pro	Lys	Glu	Lys	Thr	Gly	Pro	Met	Lys	Glu	He	Asn	Leu	Ala	Pro
				320					325					330
Asp	Ser	Ser	Ser	Val	V a I	Val	Ser	Gly	Leu	Met	Val	Ala	Thr	Lys
				335					340					345
Tyr	Glu	Val	Ser	Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg
				350					3,55					360
Pro	Ala	GIn	Gly	Val	Val	Thr	Thr	Leu	Glu					
				365					370					

<210> 18

<211> 457 .

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-179

<400> 18

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

5. 10 15

Val Thr Trp Ala Pro Pro Pro Ser lle Asp Leu Thr Asn Phe Leu

20 25 30

Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu

35 40 45

Ser lie Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu

55 60

Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln

65 70 79

His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp

80 85 90

Ser Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala Asn Ser Phe

100 10

Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr Gly Tyr Arg

110 / 115 120

He	Arg	His	His	Pro	Glu	His	Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp
				125					130					135
Arg	Val	Pro	His	Ser	Arg	Asn	Ser	He,	Thr	Leu	Thr	Asn	Leu	Thr
				140					145					150
Pro	Gly	Thr	Glú	Tyr	Val	Val	Ser	1 i e	V a I	Ala	Leu	Asn	Gly	Arg
				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	lie	Gly	GIn	GIn	Ser	Thr	Val	Ser	Asp
				170					175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
•				185					190					195
Leu	He	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	V a I	Arg	Tyr	Tyr	Arg
				200					205					210
l I e	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	GIn	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	He	Ser	Gly	Leu	Lys
				230					235					240
Pro	Gly	Val	Asp	Tyr	Thr	lle	Thr	Val	Tyr	Ala	Val	Thr	Gly	Arg
				245				-	250					255
Gly	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro	He	Ser	I I e	Asn	Tyr	Arg
				260	•				265	•				270
Thr	Glu	He	Asp	Lys	Pro	Ser	Met	Asn	Val	Ser	Pro-	Pro	Arg	Arg
				275					280					285
Ala	Arg	Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	He	Thr	Пe	Ser	Trp
				290					295					300
Arg	Thr	Lys	Thr	Glu	Thr	He	Thr	Gly	Phe	Gln	Val	Asp	Ala	Val
				305					310					315

Pro	Ala	Asn	Gly	GIn	Thr	Pro	lle	GIn	Arg	Thr	He	Lys	Pro	Asp
				320					325					330
Val	Arg	Ser	Tyr	Thr	lle	Thr	Gİy	Leu	GIn	Pro	Gly	Thr	Asp	Tyr
				335					340					345
Lys	He	Tyr	Leu	Tyr	.Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro
				350					355					360
V a I	Va I	He	Asp	Ala	Ser	Thr	Ala	lle	Asp	Ala	Pro	Ser	Asn	Leu
		•		365					370					375
Arg	Phe	Leu	Ala	Thr	Thr	Pro	Asn	Ser	Leu	Leu	Val	Ser	Trp	GIn
				380					385					390
Pro	Pro	Arg	Ala	Arg	He	Thr	Gly	Tyr	lle	He	Lys	Tyr	Glu	Lys
				395					400					405
Pro	Gly	Ser	Pro	Pro	Arg	Giu	Val	Val	Pro	Arg	Pro	Arg	Pro	Gly
				410					415					420
Va I	Thr	Glu	Ala	Thr	lle	Thr	Gly	Leu	Glu	Pro	Gly	Thr	Glu	Tyr
				425					430					435
Thr	lle	Tyr	V a I	lle	Ala	Leu	Lys	Asn	Asn	GIn	Lys	Ser	Glu	Pro
				440					445					450
Leu	lle	Gly	Arg	Lys	Lys	Thr								
				455										

<210> 19

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named CHV-181

<400> 19

Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg 10 Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu 25 Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu 35 40 Ser lie Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln 70 His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp 80 85 _ Ser Pro Thr Gly lie Asp Phe Ser Asp lle Thr Ala Asn Ser Phe 100 95 Thr Val His Trp lle Ala Pro Arg Ala Thr lle Thr Gly Tyr Arg 110 115 lle Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp 125 130 135 Arg Val Pro His Ser Arg Asn Ser Ile Thr Leu Thr Asn Leu Thr 140 145 150 Pro Gly Thr Glu Tyr Val Val Ser Ile Val Ala Leu Asn Gly Arg

				155					160					165
Glu	Glu	Ser	Pro	Leu	Leu	Пe	Gly	GIn	GIn	Ser	Thr	Val	Ser	Asp
				170			•		175					180
Val	Pro	Arg	Asp	Leu	Glu	Val	Val	Ala	Ala	Thr	Pro	Thr	Ser	Leu
				1.85		•	•		190					195
Leu	He	Ser	Trp	Asp	Ala	Pro	Ala	Val	Thr	Val	Arg	Tyr	Tyr	Arg
				200					205					210
He	Thr	Tyr	Gly	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Val	Gin	Glu	Phe
				215					220					225
Thr	Val	Pro	Gly	Ser	Lys	Ser	Thr	Ala	Thr	He	Ser	Gly	Leu	Lys
•				230		•			235					240
Pro	Gly	Val	Asp		Thr	lle	·Thr	Val		Ala	Val	Thr	Gly	Arg
				245					250					255
Giy	Asp	Ser	Pro	Ala	Ser	Ser	Lys	Pro		Ser	lle	Asn	Tyr	
		•		260					265	·				270
Thr	Glu	He	Asp		Pro	Ser	Met	Ala		Pro	Ala	Pro	Thr	
				275					280					285
Leu	Lys	Phe	Thr		Val	Thr	Pro	Thr		Leu	Ser	Ala	Gin	
				290				_	295					300
Thr	Pro	Pro	Asn		GIn	Leu	Thr	Gly		Arg	Val	Arg	Val	Thr
_				305					310					315
Pro	Lys	Glu	Lys		Gly	Pro	Met	Lys		He	ASN	Leu	Ala	
			•	320	W. 1	V. I	C	C1	325	He 4	Vel	A 1 -	T 1	330
Asp	Ser	Ser	Ser		val	Val	ser	GIY.		met	vai	Ala	ihr	
		14 - 1		335	T	415			340	The	1	Th.:	C	345
IYr	GIU	vai	ser	vaı	ΙΥΓ	Ala	ren	L y S	ASD	INT	Leu	105	2 G L	Arg

350 360 355 Pro Ala Gin Giy Val Val Thr Thr Leu Giu Asn Val Ser Pro Pro 370 Arg Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile Thr Ile 385 Ser Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln Val Asp 395 400 405 Ala Vai Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr Ile Lys 410 415 Pro Asp Val Arg Ser Tyr Thr lie Thr Gly Leu Gin Pro Gly Thr Asp Tyr Lys IIe Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser 440 445 450 Ser Pro Val Val lle Asp Ala Ser Thr 455

<210> 20

<211> 276

<212> PRT

<213> Artificial Sequence

<220>

<223> fibronectin fragment named H-275-Cys

<400> 20

Met	Ala	Ala	Ser	Ala	He	Pro	Ala	Pro	Thr	Asp	Leu	Lys	Phe	Thr
1				5		-			10					15
Gin	Val	Thr	Pro	Thr	Ser	Leu	Ser	Ala	GIn	Trp	Thr	Pro	Pro	Asn
	•			20					25					30
Val	Gln	Leu	Thr	Gly	Tyr	Arg	Val	Arg	Val	Thr	Pro	Lys	Glu	Lys
				35					40					45
Thr	Gly	Pro	Met	Lys	GΙυ	lle	Asn	Leu	Ala	Pro	Asp	Ser	Ser	Ser
				50					55					60
Val	Val	Val	Ser	Gly	Leu	Met	ΫaΙ	Ala	Thr	Lys	Tyr	Glu	Val	Ser
				65					70					: 75
Val	Tyr	Ala	Leu	Lys	Asp	Thr	Leu	Thr	Ser	Arg	Pro	Ala	GIn	Gly
	•			80					85					90
V a I	Val	Thr	Thr	Leu	Glu	Asn	Val	Ser	Pro	Pro	Arg	Arg	Ala	Arg
				95					100					105
Val	Thr	Asp	Ala	Thr	Glu	Thr	Thr	lle	Thr	lle	Ser	Trp	Arg	Thr
	•			110					115			•		120
Lys	Thr	Glu	Thr	lle	Thr	Gly	Phe	GIn	Val	Asp	Ala	Val	Pro	Ala
				125					130					135
Asn	Gly	GIn	Thr	Pro	He	GIn	Arg	Thr	He	Lys	Pro	Asp	Val	Arg
				140					145	•				150
Ser	Tyr	Thr	He	Thr	Gly	Leu	Gin	Pro	Gly	Thr	Asp	Tyr	Lys	lle
				155					160					165
Tyr	Leu	Tyr	Thr	Leu	Asn	Asp	Asn	Ala	Arg	Ser	Ser	Pro	Val	Val
				170					175					180
lle	Asp	Ala	Ser	Thr	Ala	lle	Asp	Ala	Pro	Ser	Asn	Leu	Arg	Phe
				185					190			•		195

Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp Gin Pro Pro 200 Arg Ala Arg lie Thr Gly Tyr lie lie Lys Tyr Glu Lys Pro Gly 215 Ser Pro Pro Arg Giu Val Val Pro Arg Pro Arg Pro Gly Val Thr 235 240 230 Glu Ala Thr lie Thr Gly Leu Glu Pro Gly Thr Glu Tyr Thr lie 245 250 255 Tyr Val lie Ala Leu Lys Asn Asn Gin Lys Ser Giu Pro Leu lie 260 265 270 Gly Arg Lys Lys Thr Cys

<210> 21

(211) 38

<212> DNA

<213> Artificial Sequence

275

(220)

<223> primer 12S

<400> 21

aaaccatggc agctagcgct attcctgcac caactgac

<210> 22

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> primer 14A

<400> 22

aaaggatccc taactagtct ttttccttcc aatcag

36

<210> 23

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> primer Cys-A

<400> 23

aaaagcggcc gctagcgcaa gccatggtct gtttcctgtg

40

<210> 24

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> primer Cys-S

<400> 24

aaaagcggcc gcactagtgc atagggatcc ggctgagcaa c

41

<210> 25

<211> 658

<212> PRT-

<213> Artificial Sequence -

(220)

<223> fibronectin fragment named CH-296Na

<400> 25

Met Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg

1

5

10

15

Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu Val

20

. 25

30

Arg Tyr Ser Pro Vai Lys Asn Glu Glu. Asp Val Ala Glu Leu Ser Ile

35

40

45

Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr

	50					55					60				
Glu	Tyr	Val	Val	Ser	Val	Ser	Ser	Val	Tyr	Glu	GIn	His	Glu	Ser	Thr
65					70					7,5					80
Pro	Leu	Arg	Giy	Arg	Gin	Lys	Thr	Gly	Leu	Asp	Ser	Pro	Thr	Gly	I I e
				85					90					95	
Asp	Phe	Ser	Asp	lle	Thr	Ala	Asn	Ser	Phe	Thr	Val	His	Trp	lle	Ala
	-		100					105					110		
Pro	Arg	Ala	Thr	lle	Thr	Gly	Tyr	Arg	He	Arg	His	His	Pro	Glu	His
		115					120					125			
Phe	Ser	Gly	Arg	Pro	Arg	Glu	Asp	Arg	Val	Pro	His	Ser	Arg	Asn	Ser
	130					135					140				
i I e	Thr	Leu	Thr	Asn	Leu	Thr	Pro	Gly	Thr	Glu	Tyr	Val	Val	Ser	lle
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